BY ORDER OF THE
SECRETARY OF THE AIR FORCE

AIR FORCE INSTRUCTION 21-201

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Maintenance

INSPECTION, STORAGE, AND MAINTENANCE OF NON-NUCLEAR MUNITIONS

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction establishes munitions flight organizational structure and provides inspection, storage, and maintenance procedures for nonnuclear munitions and associated support equipment. It applies to all munitions organizations across the Air Force. It implements the provisions of AFPD 21-2, *Non-Nuclear and Nuclear Munitions*. This Air Force Instruction (AFI) replaces TO 11A-1-10, *Munitions Serviceability Procedure* in part. The reporting requirements in this instruction are exempt from licensing according to paragraphs 2.11.3, 2.11.5, and 2.11.10 of AFI 37-124, *The Information Collections and Reports (ICR) Management Program*; *Controlling Internal, Public, and Interagency Air Force Information Collections*. Send comments and suggestions for improvements on AF Form 847, **Recommendation for Change of Publication** , through channels, to HQ USAF/LGMW, 1030 Air Force Pentagon, Washington, DC 20330-1030. Request MAJCOMs obtain a consensus from other MAJCOMs on controversial issues before submittal to HQ USAF/LGMW.

SUMMARY OF REVISIONS

This interim change (IC) adds the requirement to have more random searches conducted by munitions storage area entry controllers (para **1.4.9.**). It also adds the need to have two personnel sign out keys and access structures containing very high risk, high risk, and pilferable munitions (para **1.5.11.1.**). It finally adds instructions to use movement control cards for all munitions assets, to include courtesy-stored munitions, in the MSA (para**3.3.1.1.**) A bar (|) preceding a paragraph indicates changes from the previous edtion.

Chapter 1

GENERAL

1.1. Introduction. This chapter contains general information on typical responsibilities and munitions functions. When requirements of a specific item technical manual conflict with this instruction, the specific item technical manual holds precedence. Units will notify their MAJCOM munitions staff of conflicts.

1.2. Major Command (MAJCOM):

1.2.1. Publishes detailed guidance for munitions organizations. In units with specialized missions, such as Independent Munitions Maintenance Units (IMMU) or Independent Munitions Maintenance Sections (IMMS), the squadron commander or equivalent performs logistics group (LG) or operations group (OG) commander responsibilities, as applicable. For this type of structure, the Munitions Flight consists of the squadron commander (or equivalent) and supervision, as well as the common functions of flight chief, control, storage, inspection, maintenance, munitions materiel handling equipment (MMHE), line delivery and handling, combat ammunition system-base (CAS-B) mainframe or satellite, flight training, and munitions operations functions found in most other units.

1.3. Squadron Commander (or equivalent):

1.3.1. Ensures munitions facilities sited for explosives storage, inspection, and maintenance are used for their intended purpose. Forwards deviation requests through channels to MAJCOM munitions and safety directorates for action.

1.3.2. Appoints the Munitions Flight Chief based on the candidate's qualifications, experience, management skills, and technical knowledge.

1.3.3. Ensures supervisors enforce the requirements in AFI 91-201, *Explosive Safety Standards.*

1.3.4. Appoints the Munitions Accountable Systems Officer (MASO). In the Air National Guard, the state United States Property and Fiscal Officer may appoint the Chief of Supply, the aircraft maintenance officer, or the senior munitions noncommissioned officer as the MASO.

1.3.5. Ensures accurate and timely submission of required reports to higher headquarters.

1.4. Munitions Flight/Element Chief:

1.4.1. Implements training and qualification programs so technicians perform assigned tasks to established standards.

1.4.1.1. Ensures trained technicians exist to maintain a safe work environment and assure safe, serviceable, and reliable munitions.

1.4.2. Assures technicians maintain munitions and components according to technical manuals.

1.4.2.1. Applicable specific item technical orders (TO) prescribe specific instructions for maintaining, inspecting, and storing the munitions stockpile. Encourage technicians to question TO procedures if instructions appear unsafe or inefficient. Munitions flight chiefs develop local procedures to determine maintenance effectiveness, capability, and quality.

1.4.3. Maintains access lists according to AFI 31-209, *The Installation and Resources Protection Program*, and AFI 31-101, *The Air Force Physical Security Program.*

1.4.4. Ensures capability to receive, store, inspect, assemble, test, repair, troubleshoot, and deliver all munitions on the Unit Committed Munitions List (UCML) or equivalent.

1.4.5. Develops local accountability procedures for AFI 36-2217, *Munitions Requirements for Aircrew Training*.

1.4.6. Registers munitions support equipment according to TO 35-1-30, *USAF Serial Number Registration System for Selected Support Equipment*, TO 00-20-4, *Configuration Management System*, and TO 35-1-24, *Air Force Economic Repair/Replacement Criteria for Selected San Antonio Air Logistics Center (ALC) Managed Support Equipment (SE)*. Gain and loss reports are addressed to Air Force Materiel Command (AFMC) with information copies to the parent MAJCOM.

1.4.7. Guarantees crew members receive a mandatory safety briefing prior to starting explosives operations as per AFI 91-201, *Explosive Safety Standards*.

1.4.8. Ensures submittal of Dull Sword reports as outlined in AFI 91-204, *Investigating and Reporting US Air Force Mishaps*.

1.4.9. Develops written entry control procedures for the munitions storage area (MSA). Ensure procedures contain performance of random vehicle and personnel searches during MSA entry and exit as per DOD 5100.76M, Chapter 5, Paragraph I.

1.4.10. Annually submits the 3-year forecast for munitions training items used by the MSA to the MASO.

1.4.11. Implements CAS-B maintenance and operations as per AFI 21-202, *Combat Ammunition System Procedures*, AFI 21-203, *Deployable Ammunition Operations Procedures*, AFR 136-824, *Combat Ammunition System - Base (CAS-B) Users Manual* , and AFM 171-824, *Combat Ammunition System - Base (CAS-B): Computer Operation Manual*.

1.4.12. Implements ground and explosive safety programs. Indoctrinates newly assigned personnel and ensures recurring training programs occur.

1.4.13. Notifies the LG, or designated representative, and MAJCOM when the capability to accomplish the munitions mission becomes adversely affected.

1.4.14. Coordinates work schedules with all appropriate agencies.

1.4.15. Establishes procedures to control recoverable materials disposal.

1.4.16. Establishes emergency action procedures to cover severe weather conditions, explosives incidents and accidents, increased security conditions, contingency support, etc.

1.4.17. Ensures master training plan (MTP) covers peacetime and contingency tasks.

1.4.18. Manages and controls the key, lock, and cylinder program in the flight.

1.4.18.1. Each lock securing a munitions storage or maintenance structure requires a primary, spare, and control (maintenance) key. Locks and cylinders come with three keys to meet these needs. Keep primary and spare keys segregated for storage and issue purposes. Separating sets of keys in key boxes within the key storage container constitutes a good method to segregate keys. No problem arises from storing the control keys with the spare keys. Do not store conventional

structure keys in the same box with nuclear facility keys. This restriction does not preclude storing the conventional facility key box in the same safe as the nuclear facility key box.

1.4.18.2. Appoints the key and lock custodian(s).

1.4.18.3. AFI 31-209, *The Installation and Resource Protection Program*, AFI 31-401, *Information Security Program Regulation*, and AFI 31-101, *The Air Force Physical Security Program*, list lock and facility requirements for munitions storage and maintenance structures. Follow these additional requirements which enhance security:

- Prohibit master keying and local key duplication.
- Replace lock cylinders when unauthorized access or key loss occurs. Do not reuse cylinders to secure other munitions maintenance or storage structures.
- If keys locks, or cylinders become unserviceable, order replacements using the instructions contained in TO 44H2-3-101, *Operation and Maintenance Instructions High, Medium, and Low Security Hardware*. Ensure the manufacturer's key serial number accompanies the replacement order along with the key custodian's name, unit, phone number, and address. Return unserviceable assets to: Commander, NAVSURFWARCENDIV, 300 Highway 361, Crane, IN 47522-5001.
- Inspect and lubricate locks at least every 6 months using authorized procedures contained in TO 44H2-3-101.
- Stored unused keys for unclassified munitions facilities in a Government Services Agency (GSA) container approved for storing confidential material. Control bay keys in the same manner.
- For facilities containing classified material, protect the keys at the level equal to or higher than the assets under protection. Control bay keys in the same manner.
- Keep keys removed from their approved security container under constant surveillance. Do not remove keys for currently installed locks from the respective munitions storage area unless the area and key controlling function exist in different geographic locations.
- Rotate or replace high security locks securing classified munitions at least annually. Document this action on the existing AF Form 2427, **Key and Lock Control Register**. Once full, dispose of AF Forms 2427 according to AFI 37-133, Vol. 2, *Disposition of Air Force Records - Records Disposition Schedule*. The AF Form 2427 cites all lock, key, and cylinder control actions for conventional and nuclear weapons storage and maintenance facilities. The binding force takes the form of the serial number. The key serial number mirrors that of the lock and/or cylinder. In some cases, high security locks come with the serial number engraved on a tag attached to the key. In such cases, assign a local serial number and engrave or stamp it on the key. Annotate the local and manufacturer's serial numbers on the AF Form 2427 to maintain the correlation. Verify the data then destroy the manufacturer's tag. Do not apply local serial numbers to locks or cylinders. The AF Form 2427 serves as the medium to document the monthly lock, cylinder, and key audit as well as the annual lock rotation. The audit consists of a physical check of each maintenance and storage structure to verify the installed locks match those listed on the AF Form 2427. If required, perform preventive maintenance during the monthly audit. Remove from the AF Form 2427 any annotation of locks taken out of service.

- When an established audit trail exists, high security locks cylinders, and keys removed from conventional storage structures may be reinstalled on nuclear maintenance and storage facilities.
- Set up reserve stocks of high security locks and cylinders to support preventive maintenance and scheduled rotation/replacement. Keep reserve stocks in a safe, metal key box, or similar container protected by a GSA-approved 3-position combination lock.
- In writing, authorizes personnel to sign for keys to munitions structures. Uses AF Form 2432, **Key Issue Log**, to issue, receipt, and inventory keys for locks that secure munitions structures. Uses separate forms for each key set (i.e., primary, spare, and control) and each distinctive storage area. Approves key transfers among individuals authorized to receive keys. Accomplish transfers by entering the structure number on a new line in the key log, printing the name(s) of the receiving individual(s) in the "Out Signature" block on the new line, signs the "In Signature " block on the original line, and prints "key transfer" below. When the person(s) who received the transferred keys returns the keys, the "in signature " block of the log gets signed by the transferee(s).
- Perform a serial number inventory of primary and spare key sets at the end of each shift during which issues occurred, or weekly if no key issues happened. If using a verifiable tamper detection device on a key box, accomplish the inventory for keys not issued by verifying seal integrity. Also do an inventory when key and lock custodians change. Annotate the AF Form 2432 for all inventories.

1.4.19. Establishes and maintains a hazardous waste program within the flight.

1.4.20. Establishes procedures and training for emergency destruction of materiel (EDM). Munitions units with overseas mobility taskings set up an annual training program for EDM of classified conventional munitions, classified test equipment, and classified TOs and files. Use of live munitions on the EOD range is not authorized for this training. Include in training:

- Familiarization with EDM materials and procedures.
- Hands-on training using materials. Use of inert items is mandatory.
- Procedures to set up charges on classified munitions and test equipment most likely located at the deployed site.

1.4.21. Develops a munitions employment plan to support all operations plan taskings.

1.4.22. Manages the unit wartime consumable distribution objective (WCDO). The WCDO is published annually by MAJCOM and gives the gross munitions requirements for storage at a particular location in support of operational plans (OPlans) and contingencies. Units plan to store a reasonable mixture of training, WCDO, and other required munitions.

1.4.23. Develops and ensures currency of local procedures used for maintenance effectiveness, capability, and quality.

1.5. Munitions Control. . Dependent upon organizational structure, the functions of munitions control may appear at various levels within the unit.

1.5.1. Acts as the central agency for planning, coordinating, and controlling munitions support.

1.5.2. Plans, schedules, and implements the processing of repair cycle assets.

1.5.3. Tracks work order progress.

1.5.4. Keeps a current copy of the master identification (ID) listing. Assigns ID numbers for end items according to 00-20 series TOs and makes inputs to update the master ID listing.

1.5.5. Manages the awaiting maintenance (AWM), awaiting parts (AWP), and time compliance technical order (TCTO) programs. Reviews these programs weekly during scheduling meeting.

1.5.6. Schedules, controls, and directs the maintenance of inert and dummy training items and non-powered munitions support and handling equipment.

1.5.7. Informs security police and the fire department of any Class A explosive munitions movement outside the MSA or of changes in magazine contents affecting fire symbols or controlled item codes (CIC). Documents this notification.

1.5.8. Reviews the weekly aircraft schedule to determine munitions requirements (if assigned to support a flying unit).

1.5.9. Acts as the focal point for the daily reconciliation of AFI 36-2217, *Munitions Requirements for Aircrew Training*, expenditures.

1.5.10. Monitors the status of all built-up munitions and missiles.

1.5.11. Controls keys to assigned munitions facilities. Munitions storage may control keys at flight chief option.

1.5.11.1. Ensure procedures require two individuals to sign out keys, and maintain paired-access, for structures owned by the munitions storage area containing very high risk, high risk, and pilferable munitions.

1.5.12. Maintains listing of individuals authorized access to keys.

1.5.13. Tracks mission capable (MICAP) reportable equipment status.

1.5.14. Uses visual aids (boards, books, CAS-B screen, etc.) to show:

- Job status.
- Munitions trailer status by serial number and condition.
- Vehicle status.
- Facility status.
- Built up, ready munitions, or missiles including training munitions. Include sortie surge and AFI 36-2217 munitions.
- TCTO status.
- Personnel status.
- Aircraft or munitions generation status.

1.5.15. Uses multi-net radios to communicate with assigned functions and any supported flying squadrons. If required, obtains secure voice communications.

1.5.16. Dedicates telephone lines to:

- Central Security Control (CSC), law enforcement, and the MSA entry control point.
- Explosive Ordnance Disposal (EOD), if assigned.

- Base fire department.
- Command post.
- Munitions flight office, when required by location.
- Command operations center.

1.6. Munitions Materiel Handling Equipment (MMHE) Element:

1.6.1. Inspects, maintains, and services assigned non-powered MMHE. This does not include owner-user items such as slings, rapid assembly of munitions system, jammer booms, missile handling equipment, etc.

1.6.2. Dependent upon local agreement, performs inspections and maintenance on the chassis portion of ammunition loading systems (ALA, AL, and UALS).

1.6.3. Ensures repairable items are properly cleaned, tagged, packaged, and processed.

1.6.4. Performs TCTO actions on assigned MMHE.

1.6.5. Documents applicable inspection and maintenance actions.

1.7. Munitions Operations. See AFI 21-202, AFI 21-203, AFI 21-204 and/or AFI 21-208, *Munitions Forecast, Allocation and Buy Budget Processes*.

1.8. Element Chief Responsibilities :

1.8.1. Managing, supervising, and training assigned personnel.

1.8.2. Review and evaluate Quality Assurance (QA) and other inspection reports. Takes corrective action when required.

1.8.3. Coordinate work shifts with the flight chief to ensure personnel availability to support mission taskings.

1.8.4. Maintain housekeeping, safety, security, and environmental control standards.

1.8.5. Provide planning factors to the flight commander or flight chief.

1.8.6. Review new, revised, or changed publications and brief personnel of any significant changes. Determines if new or changed publications affect qualifications of personnel or method of storage.

1.8.7. Ensure availability of current publications to meet work center needs.

1.8.8. Solicit inputs and promote the product improvement and reliability and maintainability (R&M) programs.

1.8.9. Identify and prepare personnel and equipment to meet mobility taskings, if applicable.

1.8.10. Enforce technical data use.

1.8.11. Ensure personnel properly use, maintain, clean, and calibrate support equipment according to 00-20 series technical orders.

1.8.12. Ensure bench stocks meet production and mobility needs.

1.8.13. Evaluate equipment to identify deficient areas and initiate corrective actions.

1.8.14. Initiate local manufacture work order requests.

1.8.15. Ensure personnel accomplish initial and recurring environmental health physical and respirator training, if required for the duty position.

1.8.16. Maintain AFTO Form 95, **Significant Historical Data**, when applicable, according to TO 00-20-5, *Aircraft, Drone, Aircrew Training Devices, Engines, and Air-Launched Missile Inspections, Flight Reports, and Supporting Maintenance Documents.*

Chapter 2

MUNITIONS INSPECTION

2.1. Introduction. Use this AFI in conjunction with T.O. 11A-1-10. Where procedures conflict, T.O. 11A-1-10 takes precedence. A new T.O. 11A-1-10 is forthcoming. The words ***must*** and ***will*** denote mandatory requirements. The word ***should*** denotes a preferred method of accomplishment. The word ***may*** denotes an acceptable or suggested means of accomplishment. This chapter provides procedures for:

- Selection, appointment, and responsibilities of munitions inspectors.
- Container inspection requirements.
- General procedures for inspection of munitions and related items.
- Procedures for specific inspections of munitions and related items.
- Additional publications.
- Definitions of terms.
- Condition codes and definitions.
- Completion of AFTO Form 15, Airmunitions Serviceability and Location Record.
- Completion of AFTO Form 102, Munitions Inspection Document.
- Procedures for regrouped lots.

2.2. Selection, Appointment, and Responsibilities of Munitions Inspectors.

2.2.1. Select personnel for munitions inspector in the following preferred order as available.

- AFSC 2W051/71/91.
- Quality Assurance Specialist (Ammunition Surveillance) with a GS-1910 series in grade GS-9 or higher.
- MAJCOMs may deviate from the above list to meet requirements. Personnel selected must have a 5-skill level or higher. (***EXCEPTION:*** AFRES munitions technicians should have a 5-skill level. Send deviation requests to AFRES headquarters if manning constraints prevent meeting the 5-skill level requirement.)
- Air Force installations without qualified inspectors request assistance from MAJCOM.

2.2.2. Flight chiefs or equivalent appoint qualified inspectors. Personnel selected for munitions inspector duties after development of the new in-residence Munitions Inspector Course must attend the course before appointment as a munitions inspector. MAJCOMs maintain waiver authority to meet extenuating circumstances.

2.2.3. Munitions inspector responsibilities:

- Determine serviceability, potential hazards, and possible deterioration of munitions assets by performing inspections. This includes observing, testing, analyzing, and classifying munitions.
- Determine and assign appropriate condition codes to all munitions assets as directed by applicable technical orders.
- Initiate, maintain, and process applicable documents and historical records.

- Coordinate restricted and suspended actions of TO 11A-1-1, *Conventional Ammunition Restricted or Suspended,* with the Munitions Accountable Systems Officer (MASO).
- Ensure proper tagging, marking, and packing of munitions assets.
- Sign applicable documents indicating completed item inspection and that documentation accurately reflects results.

2.3. Container Inspection Requirements.

2.3.1. Barrier Bags. ***NOTE***: Do not barrier bag condemned items awaiting disposal or unserviceable munitions awaiting return to depot.

2.3.1.1. Opening:

- Open outer container.

WARNING

Ballooned barrier bags contain gases which may ignite if punctured with a metal object. Using a pointed wooden stick, puncture bag just below the heat seal and allow collected gas to escape.

- Remove bag from outer container.
- Open bag by carefully cutting material just below the heat seal with scissors or sharp blade.

2.3.1.2. Resealing:

- Remove air from barrier bag by appropriate mechanical means and reseal.
- Do not leave barrier bags open overnight.
- When making a new barrier bag, leave a sufficient border to allow for subsequent inspections and resealing.
- Mark outer container: **RESEALED BARRIER BAG**.

2.3.2. Hermetically Sealed Containers.

2.3.2.1. Do not open hermetically sealed containers during inspections except under the following conditions:

- The specific item technical manual directs opening the containers.
- The outer appearance of containers show signs of damage or corrosion indicating possible penetration of the container.

2.3.2.2. Consider munitions in undamaged containers serviceable.

2.3.2.3. Seal opened containers with two layers of waterproof, pressure-sensitive tape.

2.3.2.4. Identify previously opened hermetically sealed containers by conspicuously marking the outer container with: **NOT HERMETICALLY SEALED**.

WARNING

The explosive hazard classification could change on munitions returned to storage in other than the internal and external packaging specified in the transportation packaging order (TPO) or special packaging instruction (SPI).

2.3.3. Other Container Requirements.

2.3.3.1. Return containers to storage in original condition and packaging upon completion of inspection. Close containers securely. Rebanding may wait until prior to outshipping. Ensure unbanded containers do not delay subsequent shipments. Cardboard type, multi-pack containers, frequently opened for issue and use, may be resealed with pressure sensitive tape.

2.4. General Munitions Inspection Procedures. Inspect munitions items as designated in specific item technical manuals. Inspect depot-unique assets upon receipt using the next higher assembly technical manual and this instruction. Inspect inert items not covered by a specific item TO to ensure they meet fit, form, and function requirements.

NOTE:

EOD tools, stock classes 1385 and 1386, and inert EOD training items are exempt from inspection requirements of this instruction.

Inert and empty training items do not necessarily have to be in the same condition as operational items. Many defects that render an operational item unserviceable do not affect training items. Retain training items as serviceable if they serve their purpose without hindrance to safety or reliability. Coordinate with users to ensure usability. Inspect these items only to ensure they are suitable for their purpose.

2.4.1. Inspection. Perform inspections using procedures in specific item technical manuals or as directed by OO-ALC, MAJCOM, or directing authority. Document all combinations of inspection procedures used.

NOTE:

Place munitions received without essential technical data (i.e., handling, storage, inspection, and disposal procedures) in condition code J. Attempt to obtain required technical data. Report Air Force (AF) items (excluding research and development (R&D)) to OO-ALC/LIW via an ammunition disposition report (ADR). Explain the origin of munitions and intended use. You may use message ADRs when local conditions do not permit prolonged holding of item (e.g., critical shortage of segregated storage, etc.). If munitions are part of an R&D effort, provide ADR to the involved Air Force Laboratory or program manager. If not, provide the ADR to HQ AFMC/XR. After receipt of technical data, inspect the item, place it in appropriate condition code, and, if serviceable, you may issue it to an authorized user.

2.4.2. Critical, major, or minor defects discovered during inspections and unlisted in technical manuals do not cause rejection of the lot. Refer to Attachment 1 for detailed definitions of these defects. Place these items in condition code J until the item technician determines the condition code.

2.4.2.1. Check the ammunition lot or serial number against TO 11A-1-1 to determine if any restrictions or suspensions apply.

2.4.2.2. Check current federal logistics (FED LOG) catalog to determine if the national stock number (NSN), CIC, and Department of Defense Identification Code (DODIC), are correct. Use the specific item TO to determine correct nomenclature.

2.4.2.3. Check external packaging for obvious defects and ensure packaging is adequate to withstand additional handling, storage, and/or shipment.

NOTE:

Do not restencil containers solely to change federal stock number (FSN) to NSN. If containers require remarking for other reasons, change FSN to NSN.

Do not affix security classification to the outer container.

Do not reaccomplish container markings solely to correct deficiencies in size, location, or color (letters and/or numerals).

Orange lite boxes received from the Army do not need reidentification.

Unless required for shipment, do not correct minor packaging or crating defects not affecting adequate item protection or prohibit stacking and/or storing safely or efficiently.

Lot numbers of munitions and components previously stored in Southwest Asia contain a "Y" identifier. For example, a new lot "LS-88A123-001" becomes "LS-88A123Y00." When an identifier already exists replace it with the "Y" identifier as follows: "HAT91L003H020A" becomes "HAT91L003Y020A." For old lot numbers, add the "Y" identifier to the end of the lot number. For example, "DVA-5-20A" becomes "DVA-5-20AY."

2.4.2.4. Markings identified below are minimum outer container marking requirements:

NOTES:

A locally assigned ammunition reporting code (LARC) (see **Attachment 1**) may be used as a Department of Defense Identification Code (DODIC).

- NSN and DODIC, if assigned.
- Nomenclature. The minimum requirement for inspection purposes includes the noun, name, type, and model number, (i.e., Grenade, Hand, Fragmentation, M26). During maintenance actions requiring remarking, also include WITH or WITHOUT FUZE and fuze model number as applicable. You may abbreviate WITH as W/, and WITHOUT as W/O.
- Lot number.
- Serial number if the item is serial number controlled.

NOTE: Items in storage do not require removal or obliteration of labels.

- Items do not require Department of Transportation (DOT), United Nations (UN), and Performance Oriented Packaging (POP) markings and labels for storage purposes. Ensure absence of DOT, UN, and/or POP markings on items in storage do not delay future shipments.
- Markings. Stencil the words LITE BOX, if applicable, in orange near the nomenclature. Make the stencil highly noticeable. Normally there is one LITE BOX per lot, per condition code, per account (if applicable), per storage structure. Additional lite boxes may exist for items issued to custody accounts. ADR munitions, and munitions in ready-explosive facilities, do not require LITE BOX markings.
- Quantity and unit of issue.
- Chemical color code if required by item technical manual.

- Packing date, sometimes identified as "A/A" date, is the date of original packaging by the manufacturer. Always use the original date. Mark this data on containers if the item technical manual requires it.

NOTES:

Identify cartridge actuated devices (CAD) and propellant actuated devices (PAD) with a date of manufacture (DOM) differing from the date contained in the assigned lot number by the most recent DOM.

- DOM. Lot numbers incorporating the date of manufacture, or munitions not assigned a date of manufacture, do not require this marking.
- Weight. Only required for shipment.
- Cube. Only required for shipment.

2.4.2.5. Verify enough shelf and service life remains for the items' intended use or application. If the shelf life falls within 24 months of expiring, place items in condition code C (see **Attachment 2**. Report on-hand items for further disposition or redistribution (see AFI 21-202).

2.4.2.6. Affix applicable DD Form 1574, 1575, 1576, and 1577-series serviceability tag for assets in other than condition code A.

2.5. Munitions Inspections. Perform munitions inspections to ensure a reasonable level of confidence in our munitions stockpiles. The inspectors identify defects caused by the user and the environment and uses learned skills to properly classify assets.

NOTE:

Either in-check separately from, or concurrently with, the receiving inspection. Complete in-checking within 5 calendar days of initial receipt. Complete receiving inspections within 30 calendar days from initial receipt. New munitions received from the manufacturer or other DoD agencies require a receiving and periodic (unless exempted by MAJCOM) inspection at the time of receipt. If another agency performed a periodic inspection, it need not be repeated.

2.5.1. Receiving Inspection (RI). Perform receiving inspections upon receipt of munitions as prescribed in the specific item technical manual, general inspection procedures, and as follows:

2.5.1.1. Ensure munitions received match the description on shipping documents in quantity, description, and condition classification.

2.5.1.2. If the shipment does not have the AFTO Form 15**, Airmunitions Serviceability and Location Record**, or equivalent (e.g., Depot Surveillance Record, etc.), obtain a copy from the shipping activity or perform a periodic inspection.

2.5.1.3. Check humidity indicators on humidity controlled containers.

2.5.1.4. Do not break down unitized loads to inspect for outer container markings unless the inspector suspects lot integrity problems.

2.5.1.5. Inspect munitions in damaged containers if serviceability of either inner packaging or items is suspect.

2.5.1.6. Perform periodic inspection if due.

2.5.1.7. Complete inspection and discrepancy reports as follows:

- Complete AFTO Form 15 and AFTO Form 102, **Munitions Inspection Document** , or other appropriate inspection documentation, to show completion and results of inspection.
- Submit deficiencies attributable to contractor non conformance to standards on SF 368, **Product Quality Deficiency Report** (see TO 00-35D-54, *Deficiency Reporting*).
- Report improper markings, packaging deficiencies, missing items or forms, and item discrepancies on SF 364, **Report of Discrepancy** (see AFJI 23-215, *Reporting of Item and Packaging Discrepancies*).
- Report damage or misrouting on SF 361, **Transportation Discrepancy Report**, if the carrier is liable (see AFR 75-18, *Reporting of Transportation Discrepancies in Shipments*).

2.5.2. Storage Monitoring Inspection (SMI). Conduct a SMI using the specific item technical manual, the general inspection procedures, and the following guidelines:

2.5.2.1. Perform an SMI on items in humidity-controlled containers opened for inspection, maintenance, or inventory 3-15 days after closing the containers. If within limits, restart the normal SMI interval outlined in the specific item TO

2.5.2.2. There is no need to segregate containers failing an SMI provided the inspector tags the container and initiates an AWM or AWP work order.

2.5.2.3. Personnel other than munitions inspectors may perform SMIs.

2.5.2.4. Appropriately document the results of SMIs.

2.5.3. Pre-Issue Inspection (PII). Perform pre-issue inspections upon issue of munitions. Use the specific item technical manual, the general inspection procedures, and the following:

2.5.3.1. Inspect all training and dummy devices, and inert loaded and empty munitions items to determine proper identification (see TO 11A-1-53, *General Instructions for Ammunitions Color Coding, Identification of Empty and Inert Loaded Ammunition Items and Components, and Assignment of Version Numbers to Training and Dummy Ammunition Items*).

2.5.3.2. If due, perform a periodic inspection prior to issue.

NOTE:

Do not correct packing and minor marking defects prior to issue for consumption.

2.5.3.3. Use the general inspection procedures to inspect items with a current periodic inspection.

2.5.3.4. If the inspector discovers a discrepancy, initiate appropriate inspection documents. If no defects exist, the inspector signs the issue document(s).

2.5.4. Pre-Use, Post-Use, and Recertification Inspections. The users, not munitions inspectors, perform these inspections as follows:

2.5.4.1. During assembly or prior to use, visually inspect 100 percent of munitions for damage that precludes use.

2.5.4.2. Inspect munitions cycled between the flight line and the munitions storage area for damage that precludes use.

2.5.4.3. Identify any damage noted during inspection to a munitions inspector for condition code classification and to determine serviceability.

2.5.4.4. Do not document these inspections.

NOTE:

Retain or report the actual condition code dependent upon remaining shelf and/or service life of aircraft egress items removed for time change according to policies TO 00-20-1, Preventive Maintenance Program, General Requirements and Procedures. When shelf and/or service life is within 6 months of expiration, place the items in condition code J or F (if the item is repairable at depot).

2.5.5. Returned Munitions Inspection (RMI). Perform RMIs on munitions returning to base stock (FV or FK). An RMI often directly affects the result of a subsequent periodic inspection (PI). Inspectors ensure the use of specific item technical manuals, general inspection procedures, and the following:

- Items in unopened, sealed (factory or munitions inspector) containers need only a visual inspection of the container.
- Inspect all unpackaged items and items in opened containers.
- Disassemble munitions (if applicable) and inspect components according to the specific item technical manuals. Return assets to original or equivalent containers.
- Perform periodic inspection if due.
- Do not document inspection unless the inspector discovers defects.

NOTE:

PI intervals and sample sizes for missiles and computer control groups are in the specific item technical manuals

2.5.6. Periodic Inspection (PI). Perform a PI using specific item technical manuals, general inspection procedures, and the following:

NOTE:

For munitions stored at collocated operating bases (COB), perform PIs within the calendar year of due date.

2.5.6.1. Inspection Samples.

- Open at least one outer container and inspect inner contents to detect degradation of munitions items.
- Select samples from each lot by condition code and storage facility.
- Select containers exposed to the least favorable storage conditions.
- Treat items on custody accounts stored outside designated munitions storage area as separate lots.
- Select previously opened hermetically sealed containers and barrier bags before unopened containers.

2.5.6.2. PI intervals. Conduct PIs at the intervals prescribed in specific item technical manuals. For example, for an item with a 5-year PI:

- The first PI will be 5 years after DOM. Inspect each lot once every 5 years thereafter.
- A lot inspected on 15 October 1994 must have its next PI completed by 31 October 1999.

Inspect munitions in unserviceable, economically reparable condition codes during their normal periodic cycle. Inspect for defects that may cause progressive deterioration. The purpose is to detect evidence of further deterioration and additional defects that may alter percentages requiring rework or changing condition codes. Items requiring testing for determination of condition code do not require retesting during subsequent inspections.

Inspect unserviceable, uneconomically repairable munitions only to ensure the items are safe for continued storage, handling, and transportation. Accomplish this safety inspection once each year unless conditions warrant more frequent inspection.

NOTE:

The sample size and reject limits in this instruction replace munitions normal; munitions reduced; and container sampling tables referred to in specific item technical manuals. The specific item technical manuals will be changed during normal review process. Do not submit AFTO Forms 22, Technical Order Improvement Report and Reply, to correct inspection sampling table references.

If the inspection sample exceeds the reject limits before inspecting the entire sample size, continue inspecting the sample size until completed.

Defects exceeding lot sample acceptance limits, but not affecting the form, fit or function of the munitions, may justify placing the lot in an appropriate serviceable or repairable condition code rather than condition code **J**.

If defects are found, identify the probable type of defect (manufacturing, environmental, or user-induced), the owning storage facility, and whether packaging was unopened or previously opened. Use reject limits applicable to the type defect:

- Discovery of a critical defect of any type causes lot rejection and requires a 100 percent inspection of the entire lot for the defect.
- The discovery of major or minor defects attributed to the manufacturing process causes rejection of the lot. Perform a 100% inspection of assets. Repair defective items or reject according to specific item TO.

NOTES:

Expect items stored outdoors without inner packaging to show environmental defects. Do not reject these lots for minor environmental defects. Assign the appropriate condition code and attempt to halt the progression of deterioration. The reject limit for major or minor environmental or user-induced defects is one. Rejection procedures:

- Reject those items from the same facility in the same type of packaging.
- Inspect rejected items. If packaging was previously opened, inspect items in all
- previously opened packages and in one unopened package for noted defects. If the items in the unopened package have environmental defects, reject entire lot and inspect 100 per-

cent for noted defects. Correct other observed defects of any type. After the inspector removes the unserviceable items, the remainder of the lot is serviceable.

- Segregate and process all defective items for repair or disposition according to the specific item TO. Inspectors should attempt to determine the probable cause of the defect and submit recommendations for corrective actions, (i.e., QDR, MDR, local change of storage, etc.).
- If the inspection exceeds the reject limits, document the 100 percent inspection as a Special Inspection.

2.5.6.3. Documentation of PIs.

2.5.6.4. Munitions exempt from periodic inspection:

- Assembled or configured items.
- Installed munitions.
- All inert loaded, empty, nonexplosive, training, and static display items. Unless the item technical manual or major command requires a periodic inspection, inspect these items at the time of use to ensure suitability for intended purpose.
- Items contained in emergency survival kits.
- Training items assembled for loading or maintenance training.
- Items in use for storage or surveillance test projects.
- Depot-unique items not listed in specific item TOs.

2.5.7. Special Inspections (SPI). Use general inspection procedures and:

- As directed by OO-ALC/LIW, MAJCOM, or Flight Chief.
- As the 100 percent inspection when a lot exceeds reject limits during periodic inspections.
- Document maintenance actions as SPIs that change condition codes.
- Document TCTO actions as special inspections.
- Document SPIs on munitions inspection documentation citing the authority, reason for inspection, and results.

2.5.8. Shipping Inspection (SI). Inspect munitions for shipment according to specific item technical manual, general inspection procedures, and the following:

- Ensure shipping documentation reflects proper quantity, description, and condition classification.
- Perform a periodic inspection if due.
- Accomplish palletization, unitization, and banding, when required. Placard pallets with mixed lots and quantities.
- Check that special markings called for on the shipping documents, including required UN and POP markings, appear on each package, pallet, and unitized load.
- Check appropriate inspection documentation for each lot or serial numbered item of the shipment for accuracy. Annotate completion and results of the shipping inspection.

- Ensure lot history records sent with the shipment include all TCTO data, condition code changes, most current periodic inspection results, and Tactical Missile Record System (TMRS) data diskette and hard copies.
- Enclose shipping documents in the number one container of the shipment and mark the container: DOCUMENTS ENCLOSED.
- Inspect all inert loaded and empty munitions items, and training and dummy devices, to determine proper identification according to TO 11A-1-53.

2.6. Unserviceable Munitions Pending Approval of AF Form 191, Ammunition Disposition Report (ADR). Different lots of unserviceable munitions with the same NSN and reported under a single ADR number may be packed in the same container(s). Conspicuously mark containers with ADR number, NSN, nomenclature, lot numbers, and quantity per lot. Place lot numbers on inner containers when present. A single AFTO Form 15 may be maintained on each ADR number with quantities and lot numbers posted on reverse side of form. Maintain control of these items by ADR number. Contact the base environmental office to determine any local or state limitations or requirements.

2.7. Failed-To-Function Munitions. Do not reuse munitions that failed to function unless directed by the item TO. Inspectors will attempt to determine the probable cause and recommend corrective actions. Report all incidents of improper functioning or failure to function by message to the appropriate equipment specialist or according to TO 00-35D-54.

2.8. Procedure for Ammunition Prepositioning Ship Inspections:

2.8.1. Perform inspections as directed by OO-ALC/LIWX and as follows:

- The 6-month on board ship surveillance inspections consist of limited visual inspections of stored munitions in the ship's hold. Inspectors look for potential conditions contributing to progressive deterioration and affecting serviceability.
- Conduct three-year periodic crossload inspections using applicable general inspection procedures and periodic inspection criteria.
- With concurrence of OO-ALC/LIWX, the ranking munitions inspector (AFSC 2W0X1) determines deviations or additions to the above criteria.

Chapter 3

MUNITIONS STORAGE

3.1. Munitions Storage:

3.1.1. Receives, stores, and handles munitions and training items in the warehouse. Store munitions outside according to specific item technical orders, AFI 91-201, and subject to MAJCOM approval.

3.1.2. Prepares and schedules munitions for shipment.

3.1.3. Sends documentation to the MASO showing all munitions serviceability and location changes.

3.1.4. Ensures proper documentation authorizes items removed from storage.

3.1.5. To the furthest extent, segregates custody account and courtesy stored munitions from base stock munitions.

3.1.6. Manages the storage of unit WCDO.

3.2. General Storage Procedures:

3.2.1. Develop local checklists for unique storage procedures and instructions. Quality assurance approves the checklists.

3.2.2. Store munitions according to TO 11A-1-61-4, *Storage and Outloading Instructions Conventional Ammunition (Storage Drawings for Igloo, Stradley, and Standard Type Magazines and Miscellaneous Palletizing Drawings)*, AFI 91-201, AFI 31-209, and general storage procedures contained in this AFI.

3.2.3. Use indoor (magazine) storage for bulk high explosives, solid propellants, and pyrotechnics. Though not mandatory, make all attempts to store other explosives indoors. (Consult the specific item TO for constraints). Give priority for existing indoor storage to items requiring the most protection from the weather.

3.2.4. Install an intrusion detection system (IDS) for permanent storage facilities established for high risk, very high risk,, or classified munitions. When IDS is not available, protect very high risk, high risk, and classified munitions as outlined in AFI 31-209.

3.2.5. Dunnage for inside storage must provide a minimum clearance of 2 inches from the floor.

3.2.6. Dunnage for outside storage must provide a minimum clearance at the bottom of the stack of 4 inches for hardstands and 6 inches for unimproved surfaces.

3.2.7. Stack munitions neatly to prevent unstable stacks. Containers must be clean, dry, and properly marked prior to being put in storage.

3.2.8. Provide sufficient aisle space for handling, inventory, and inspection of munitions.

3.2.9. Magazine exits. Keep doors and locks in good working order. Close and lock magazines at all times, except when being aired or when personnel are in the magazine. Apply protection criteria as outlined in AFI 31-209.

3.2.10. Keep structures in good condition and suitable for the storage of explosives in accordance with AFI 91-201. Post explosive limits in each magazine and igloo.

3.2.11. Ventilate storage spaces to circulate air or dehumidify as needed. Check ventilators periodically to ensure proper functioning. Close ventilators when blowing snow or humid air would increase condensation. Establish controls to prevent heat buildup within the storage space. Ventilators may also be closed to protect munitions from blowing sand.

3.2.12. Do not paint fusible links. Ensure they are serviceable, properly installed, and rated for 160 degrees Fahrenheit (71.1 degrees Celsius) as per AFI 91-201.

3.2.13. Use a minimum of 24 inches of earth covering on igloos. Properly maintain to prevent erosion.

3.2.14. Install and maintain lightning protection systems. Perform testing and inspection according to AFI 32-5011, *Maintenance Responsibilities for Air Force Grounding Systems,* and AFP 91-38, *Maintenance of Electrical Grounding Systems.*

3.2.15. Keep interiors of storage structures clean and free of prohibited articles and material. Do not store powered lift trucks, dunnage, empty boxes, excess packing material, or similar items in a magazine, igloo, or other location containing explosives. Do not store paints, oils, and other flammable materials in a magazine or igloo containing explosives.

3.2.16. Non combustible equipment required to support approved contingency plans may be stored in explosive facilities for ready use.

3.2.17. Store munitions in their shipping configuration as much as possible.

3.2.18. Do not remove items from storage without proper documentation.

3.2.19. Maximize use of existing storage facilities for storage of munitions and explosives. General information for munitions warehousing is in TO 11A-1-61-4, AFI 91-201, AFI 31-209. and general storage procedures in this AFI.

- Assign storage locations according to TO 11A-1-61-4.
- Store only one "LITE BOX" for each lot and condition code, preferably on the top and front of the stack, unless custody accounts need more than one lite box for mobility purposes.
- Use the Combat Ammunition System-Base (CAS-B) as the approved computer program. Find procedural guidance for this system in AFI 21-202 and AFI 21-203.
- CAS units update munitions locations using the work order program in the CAS-B.

3.2.20. Separate all courtesy-stored munitions from the base stockpile as much as possible. Identify custody-issued munitions courtesy-stored in munitions flight facilities.

3.3. Movement Control. The flight chief determines movement control procedures and designates them in writing.

3.3.1. Develop procedures for tracking munitions moved from one location to another.

3.3.1.1. Use a MAJCOM or locally computer-generated form to track munitions movements within, to, and from munitions storage sites to include both stockpile and custody account assets (excludes pilot training custody accounts and assets tracked by munitions personnel via other means for flightline delivery). As a minimum, this form contains the following headings or blocks: National Stock Number, Item Nomenclature, Control Number of the Movement Control Record, Date Issued, Document Number, Work Order Number, Issued To, Item Lot Number,

Quantity, Condition Code, From, To, Action Codes, Crew Chief, Date Accomplished, and Reviewed and Posted.

3.3.1.2. Units with the CAS computer system will use CAS for movement control purposes.

Chapter 4

NON-NUCLEAR MUNITIONS MAINTENANCE PROCEDURES

4.1. General Shop Maintenance Procedures. The noncommissioned officer in charge (NCOIC) of the Maintenance Section ensures:

- Personnel receive proper training and qualification to build, test, repair, and assemble all munitions on the Unit Committed Munitions Lists (UCML), or its equivalent.
- Crew chiefs give crew briefings before the start of any explosive operation.
- Accomplishment of TCTOs on munitions and munitions maintenance handling equipment (MMHE). Report TCTO actions on conventional munitions using the conventional munitions TCTO tracking system (CMTCTOTS).
- Augmentees receive training on wartime tasks.
- Updates of Tactical Missile Record System (TMRS) on all assigned missiles and components.
- Personnel properly use Red X procedures according to TO 00-20-1.
- Workers accomplish In-Process Inspections (IPI) as outlined in TO 00-20-1.
- Establishment of an All-Up-Round (AUR) missile serialization plan required by TO 21M-1-101, *Reliability Asset Monitoring System*.
- Personnel perform maintenance on munitions items according to specific item technical orders.
- Proper annotation of AFTO Form 350, Reparable Item Processing Tag, according to TO 00-20-2, Maintenance Data Collection.
- Workers complete DD Form 1574, 1575, 1576, 1577-Series tags according to TO 00-20-3, *Maintenance Processing of Reparable Property and the Repair Cycle Asset Control System.*
- Personnel properly maintain emergency eyewash and showers as per AFOSH STD 127-32, *Emergency Showers and Eyewash Units* .
- People use AFOSH STD 127-46, Materials Handling and Storage Equipment, to inspect, weight check, stencil, etc., lifting devices (i.e., overhead hoists, cranes, etc.).
- Technicians properly store flammable and combustible liquids according to AFOSH STD 127-43, Flammable and Combustible Liquids.
- Workers properly wear, inspect,, and store respirators as required in AFOSH STD 48-1, Respiratory Protection Program.
- Personnel store oily rags and other waste in proper containers, and empty the containers daily per AFOSH STD 127-66, General Industrial Operations.
- Personnel perform and document fire extinguisher inspections required in AFOSH STD 127-56, Fire Protection and Prevention.
- Use of cleaning fluids in well ventilated rooms as outlined in AFOSH STD 161-2, Industrial Ventilation.
- Maintenance section maintains completed forms on support and training equipment as outlined in TO 00-20-7, *Inspection System, Documentation, and Status Reporting for Support and Training Equipment*.

- Proper maintenance of shelf life items (lubricants, paint, etc.) as per TO 00-20K-1, *Inspection and Control of USAF Shelf-Life Equipment.*
- Vehicle pintle hooks and attaching hardware meet requirements of TO 36-1-121, Standardization of Lunettes and Pintles (Towing Attachments).
- Proper maintenance of technical order files as required in TO 00-5-2, *Technical Order Distribution System*, and publication files as per AFI 37-160, Volume 7, *The Air Force Publications and Forms Management Programs--Publication Libraries and Sets.*
- Coordination with base bioenvironmental personnel on the proper handling, storage, and disposal of hazardous material and waste. Also that munitions personnel remain knowledgeable of hazardous waste accountability and responsibilities.
- Personnel maintain and store bench, shop, and operating stocks as required in AFM 67-1, Volume 2, Part 2, *USAF Standard Base Supply System.*

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Attachment 1

GLOSSARY OF REFERENCES AND TERMS

References

NOTE:
The following is a list of publications other than specific item technical orders used with this instruction for munitions inspections:

AFI 37-133, Volume 2, *Disposition of Air Force Records--Records Disposition Schedule*

AFI 21-101, *Maintenance Management of Aircraft*

AFM 67-1, *USAF Supply Manual*

AFPD 24-2, *AF Packaging*

AFI 24-204, *Preparing Hazardous Materials for Military Air Shipments*

AFI 24-206, *Packaging of Material*

AFI 24-210, *Performance Oriented Packaging of Hazardous Material*

AFR 75-18, *Reporting of Transportation Discrepancies in Shipments*

AFI 91-302, *Air Force Occupational Safety, Fire Prevention and Health Program*

AFI 91-201, *Explosives Safety Standards*

AFPD 21-1, *Managing Aerospace Equipment Maintenance*

AFPD 21-2, *Nonnuclear and Nuclear Munitions*

AFI 21-202, *Combat Ammunition System Procedures*

AFI 21-203, *Deployable Ammunition Operations Procedures*

AFI 21-206, *The Global Asset Positioning Program*

AFI 21-208, *Munitions Allowances for Training Allocation Process*

AFM 136-824, *Combat Ammunition System - Base (CAS-B) Users Manual*

AFJI 23-215, *Reporting of Item and Packaging Discrepancies*

AFI 32-5011, *Maintenance Responsibilities for Air Force Grounding Systems*

AFP 91-38, *Maintenance of Electrical Grounding Systems*

MIL-STD-129, *Marking for Shipment and Storage*

MIL-STD-1461, *Ammunition Manufacturers and Their Symbols*

MIL-STD-1168, *Ammunition Lot Numbering*

Bureau of Explosives Tariff No. BOE 6000

ATA Hazardous Materials Tariff No. ATA III

CFR 40, *Hazardous Materials*

CFR 49, *Transportation of Explosives and Other Dangerous Articles by Land and Water in Rail Freight Service and Motor Vehicle (Highway) and Water*

AFOSH STD 127-32, *Emergency Showers and Eyewash Units*

AFOSH STD 127-46, *Materials Handling and Storage Equipment*

AFOSH STD 127-43, *Flammable and Combustible Liquids*

AFOSH STD 127-56, *Fire Protection and Prevention*

AFOSH STD 127-66, *General Industrial Operations*

AFOSH STD 161-2, *Industrial Ventilation*

AFOSH STD 48-1, *Respiratory Protection Program*

TO 00-5-2, *Technical Order Distribution System*

TO 00-20-1, *Preventive Maintenance Program, General Requirements and Procedures*

TO 00-20-2, *Maintenance Data Collection*

TO 00-20-5, *Aircraft, Drone, Aircrew Training Devices, Engines, and Air Launched Missile Inspections, Flight Reports, and Supporting Maintenance Documents*

TO 00-20-7, *Inspection System, Documentation, and Status Reporting for Support and Training Equipment*

TO 00-20K-1, Inspection and Control of USAF Shelf-Life Equipment

TO 00-20-3, *Maintenance Processing of Reparable Property and Repair Cycle Asset Control System*

TO 00-20-9-1, *Cartridge/Propellant Actuated Devices*

TO 00-25-234, *General Shop Practices*

TO 00-35D-54, *USAF Material Deficiency Reporting and Investigating System*

TO 00-85-3, *Corrosion Control for Packaging*

TO 00-85-4, *Fiberboard Boxes, Fiber Drums, Fiber Tubes and Small Interior Boxes*

TO 00-85-5, *Nailed Wood Boxes*

TO 00-85-6, *Cleated Panel Boxes*

TO 00-85-7, *Crate Construction*

TO 00-85-8, *Interior Blocking, Bracing, and Cushioning*

TO 00-85-10, *Metal Container Preservation and Packaging*

TO 00-85-35, *Selection and Use of Tape for Packaging*

TO 11A-1-1, *Conventional Ammunition Restricted or Suspended*

TO 11A-1-46, *Fire Fighting Guidance, Transportation, and Storage Management Data and Ammunition Complete Round Chart*

TO 11A-1-53, *General Instructions for Ammunition Color Coding, Identification of Empty and Inert Loaded Ammunition Items and Components and Assignment of Version Numbers to Training and Dummy Ammunition Items*

TO 11A-1-60, *General Instruction Inspection of Reusable Munitions Containers and Scrap Material Generated from Items Exposed to, or Containing Explosives*

TO 11A-1-61, *Series Storage and Outloading Instructions*

TO 11A-1-65, *Munitions 463L Palletization for Air Transportation*

TO 36-1-121, *Standardization of Lunettes and Pintles* (Towing Attachments)

MCRL-1

MCRL-2

ML-C-BASIC

Data Compact Disk System

FED LOG (Federal Logistics Data)

H4/H8 (Federal Supply Code for Manufacturers) *Name to Code/Code to Name*

H4-3 (NATO Supply Code for Manufacturers) *Name to Code/Code to Name*

Terms

Aboveground Magazine—Any magazine aboveground other than earth-covered. Consists of roof, wall, and sub-floor ventilators.

Ammunition—See **Munition**.

Ammunition Lot Number—A code number systematically assigned to each munitions lot at the time of manufacture, assembly, or modification. Manufacturers assemble each munition within a lot under uniform conditions, therefore each should function uniformly.

Assembled or Configured Items—Items formed by combining two or more munitions line items, or items that changed in some manner to configure them for use. These items often appear in a complete round configuration. This includes items removed from their standard packaging and maintained for some purpose other than storage, such as small arms and hand grenades carried on a daily or frequent basis by security police personnel, and ammunition loaded in aircraft gun systems.

Barrier Bag—A bag made of barrier paper sealed by heat to exclude air and remains leakproof under normal temperatures and atmospheric conditions.

Cartridge Actuated Device (CAD)—A device using a self-contained removable explosive cartridge to provide a source of gas pressure to perform its intended function; e.g., thrusters, initiators, catapults, cutters, etc.

Complete Round—A term applied to an assemblage of explosive and nonexplosive components designed to perform a specific function at the time and under the conditions desired.

Defect—Any non conformance with specified requirements. Although an item may be scratched in any number of places; the defect will be counted once. Do not count each scratch as a separate defect. Several spots of rust may be present, but class all as one defect. If both scratches and rust appear, the item contains

two defects.

Defect Standards—There are four categories of ammunition and marking defects:

- **Critical.** A defect that is likely to result in hazardous or unsafe conditions for individuals using, transporting, or maintaining the item. A defect that is likely to cause the destruction of, or serious damage to, a weapon or launcher under normal training or combat conditions. For markings, a condition where the marking can result in hazardous or unsafe conditions for persons using or maintaining the item. Examples are; incorrect delay time, incorrect color or type of smoke or signal, high explosives (HE) ammunition with practice markings.
- **Major.** A defect other than critical, that is likely to result in failure in tactical use or that precludes or reduces materially the usability of the item. For markings, a condition where the marking can cause misuse or failure, e.g., incorrect model or type of round or fuze, HE instead of high explosives anti-tank (HEAT), etc.
- **Minor.** A defect other than critical or major, that is not likely to result in failure during use. It does not affect use or operation of the item and should be corrected prior to issue. For markings, marking defects other than critical or major that normally should be corrected prior to issue. For example, partially illegible lot number (can be identified) or missing DOT name in the item packing.
- Incidental Defect. Defects not of the critical, major, or minor types and not identified in the applicable classification of defects table in the item technical manual. Incidental defects will be noted on AFTO Forms 15 and 102 but not considered when evaluating lot serviceability. For markings, any marking other than critical, major, or minor. Markings should be corrected when maintenance becomes necessary.

Defect Types—There are three types of defects:

- **Environmental.** Defects caused by exposure to environmental factors such as; heat, cold, humidity, and salt air. These factors may cause defects such as melting or gumminess, brittleness, moisture or fungus damage, and corrosion.
- **Manufacturing.** Defects caused by the manufacturing process. Contract specifications allow for a percentage of items to have defects.
- **User-induced.** Defects attributed to the user. They may resemble manufacturing defects. Classify as user-induced if new items or items in factory sealed containers do not exhibit the same type defects.

Defective Item—An item that contains one or more defects.

Department of Defense Identification Code (DODIC)—A DODIC, assigned by the Department of Defense, serves as an additional identifier in conjunction with the munitions National Stock Number (NSN). The DODIC is a four-digit alphanumeric identifier, used for identification and unitizing a munitions item under its form, fit, and functional characteristics. This four-digit identifier, when assigned, appears after the NSN, on the inner and outer pack and/or container.

Earth-Covered Igloos—There are many types of earth-covered igloos; both standard and nonstandard. The two main types used differ only in the materials used for construction. Standard igloos are constructed entirely of reinforced concrete, whereas nonstandard igloos have steel and wood arched roofs. End walls may be steel, wood, or concrete. Both types have arched roofs and are built to force the blast and fragments upward through the roof in the event of mass detonation of munitions. These igloos can be

either barricaded or unbarricaded on the door end.

Empty Nonnuclear Munitions—A munitions item or component with its explosive material completely removed or omitted at time of manufacture and not replaced by other materials.

Exudation—The oozing of explosive and or inert filler from munitions items.

Function Test—Functioning of an item under controlled conditions to find out if the item performs as designed.

Functional Lot—A quantity of two or more types of cartridges packed in an authorized combination as an item of issue.

Hermetically Sealed Container—A metal can sealed to exclude air and is leakproof at normal temperatures and atmospheric pressure. Generally used with munitions items that once opened, the service life of the item(s) starts. The container is not hermetically resealable

Humidity-Controlled Containers—Containers that contain desiccant and a humidity indicator showing the relative humidity inside the container.

Hybrid Lot—A hybrid lot of ammunition consists of components of various interfix numbers and manufacturers in excess of the number permitted by specification. Field personnel will not form these lots.

Inert Loaded Nonnuclear Munitions—A munitions item or component with inert material replacing its explosives material.

Installed Munitions—These are items such as cartridge actuated devices and propellant actuated devices which, when installed, become a component of another system and controlled by maintenance, inspection, and record keeping procedures for that system.

Inter modal Container—These include, but are not limited to, military vans and International Organization for Standardization containers. These containers are general purpose dry cargo types that completely enclose contents by permanent corrugated steel structures and provide cargo loading access through end or side-opening doors. The standard width of an inter modal container is 8 feet and may be 20 or 40 feet long. Containers typically have a floor made of wood and steel. Use these containers for shipping or storing munitions.

Lite Box or Container—A box or container containing fewer items than the standard pack for the specific item.

Locally Assigned Ammunition Reporting Code (LARC)—A temporary Department of Defense Identification Code (DODIC). When assigned, the LARC, a four-digit alphanumeric identifier, is an integral part of the munitions' National Stock Number and is used as an identifier instead of the official DODIC until the Department of Defense (DoD) assigns a DODIC. The LARC remains a traceable identifier for the munitions item assigned and does not need to be corrected after DoD assigns the official DODIC.

Magazines—Any building or structure, except operating buildings, used for the storage of explosives, ammunition, or loaded ammunition components. Two types are aboveground and earth-covered.

Modules—A module is a barricaded area composed of a series of not more than eight connected cells, with hard surface storage pads, separated from one another by a barricade. Pads are not normally covered. However, where necessary, a light shed-type metal roof to cover individual cells may be used. Heavy

structures or flammable materials are not used.

Multi-cubicle Magazines—Constructed of brick and mortar exterior walls. The floor and partitioning walls are constructed of reinforced concrete. The center partition is 3-feet wide, and the other partition walls are 1-foot thick. The roof is constructed of a frangible material, and blowout panels are built into the exterior walls above each door.

Munitions—A complete device charged with explosives, propellants, pyrotechnics, initiating composition, or nuclear, biological, or chemical material for use in military operations, including demolitions. Certain suitably modified munitions can be used for training, ceremonial, or nonoperational purposes. Also called **ammunition** . ***Note***: In common usage, "munitions" (plural) can be military weapons, ammunition, and equipment.

Munitions Accountable Systems Officer (MASO)—The individual appointed as accountable for assigned munitions.

Munitions Condition Codes—Alphabetical code indicating the current serviceability status of munitions items (see attachment 2).

Nonexplosive Items—The term applied to any nonexplosive item in subparagraph A2.21(Inert Loaded Nonnuclear Munitions).

Operating Configuration—Items removed from prescribed packaging and storage and/or are in-use. Includes items issued to a custody account.

Periodic Inspection (PI)—Inspection required at specific intervals as prescribed by the specific item technical manual.

Pre-Issue Inspection (PII)—Inspection required to ensure serviceability of an item prior to issue.

Pre-Use, Post-Use, and Recertification Inspection (PPI)—A 100 percent visual inspection for unacceptable defects that preclude use of the item. Performed prior to operational use or during assembly.

Propellant Actuated Device (PAD)—A device using a propellant as an integral part of the device, to provide a source of gas pressure to perform its intended function; e.g., impulse cartridges, delay cartridges, squibs, etc.

Receiving Inspection (RI)—An inspection performed upon receipt of munitions to verify condition and confirm material is as described on shipping document. Two or more lots of the same model or type combined to form one lot. Assign a local regrouped lot number (see Attachment 5).

Returned Munitions Inspection (RMI)—An inspection performed on munitions returned from custody and consumption accounts prior to return to base stock.

Reusable Container—A container designed for and designated for reuse.

Sample—Items drawn from a lot or batch for inspection or test.

Shipping Inspection (SI)—Inspection performed on an item or container to verify condition, proper markings, and adequacy of the container for shipment.

Special Inspection (SPI)—An inspection required by senior munitions inspector, Major Command, or depot according to specific instruction from that authority.

Standard Packs—The quantity of items per container as packed by the manufacturer. Standard packs for munitions vary by item and there may be several packs considered standard for each item. Standard packs

are listed in the Federal Logistics (FEDLOG) Data Compact Disk System. The following may retain the original type packing as standard pack:

- Nonstocklisted items.
- Unserviceable items.
- Items without a standard pack listed in the FED LOG.

Storage Monitoring Inspection (SMI)—An inspection performed on items in storage at intervals specified in the item technical manual.

Unit Committed Munitions List—A unit tasking document provided by MAJCOM listing primary, support, and limited use munitions.

Attachment 2

MUNITIONS CONDITION CODES

A2.1. Munitions Conditions Codes. Ammunition condition codes originate in DOD 4140.27-M and DOD 5160.65M and are listed in this instruction for reference during normal performance of Air Force management responsibilities. With the exception of amplifications, this table is not subject to change because of combined services origin.

Assign munitions one condition code; however, more than one condition code may apply. Use the most restrictive condition code. Other applicable condition codes may be recorded in the Record of Inspection block of the AFTO Form 15 or Remarks section of the CAS-B Lot History Record.

Table A2.1. Munitions Condition Codes.

CODE	TITLE	DEFINITION	REMARKS
A	**SERVICEABLE (ISSUABLE WITHOUT QUALIFICATION)**	New, used, repaired, or reconditioned material that is serviceable and issuable to all customers without limitations or restrictions. Shelf life remaining is more than 6 months.	Normal incidental requirements for additional packaging, packing, or marking, etc., that can be done when issued without additional resources or manpower, or cause a delay or constitute a restriction.
B	**SERVICEABLE (ISSUABLE WITH QUALIFICATIONS**	New, used, repaired, or reconditioned material that is serviceable and issuable for its intended purpose, but is restricted from issue to specific units, activities, or geographical areas because of its limited usefulness or short service life expectancy. Shelf life remaining is from 3 to 6 months	Normal incidental requirements for additional packaging, packing, or marking, etc., done when issued without additional resources or manpower or a delay does not constitute a restriction. Includes items restricted from or to special missions.
C	**SERVICEABLE (CUSTOMER CONCURRENCE REQUIRED PRIOR TO ISSUE)**	Serviceable and issuable items for select customers, but must be issued before condition codes A and B material, to avoid loss as a usable asset. Shelf life remaining is less than 3 months.	USAF units place shelf and service life items in condition code C when service life is started or within 2 years of shelf life expiration. This is an AF unique application of this code as authorized by OO-ALC/LIW.

D	**SERVICEABLE (TEST/ MODIFICATION)**	Serviceable material requiring test, alteration, modification, conversion, or disassembly. Does not include items that must be inspected or tested immediately before issue.	
E	**UNSERVICEABLE (LIMITED/ RESTORATION)**	Material that involves only limited expense or effort to restore to serviceable condition and is accomplished in the storage activity where the stock is located.	Minor maintenance to munitions. Includes all repair of external surfaces and repair or replenishment of packaging, packing, palletization, and marking.
F	**UNSERVICEABLE (REPARABLE)**	Economically reparable material requiring repair, overhaul, or reconditioning. Includes radioactively contaminated reparable items.	Major maintenance requires replacement of end item components or modification.
G	**UNSERVICEABLE (INCOMPLETE)**	Material requiring additional parts or components to complete the end item before issue.	
H	**UNSERVICEABLE (CONDEMNED)**	Material that has been determined unserviceable and does not meet repair criteria. Includes radioactively contaminated condemned items.	
J	**SUSPENDED (IN STOCK)**	Material in which stock that has been suspended from issue, pending condition classification or analysis, where the true condition is unknown.	Includes Air Force material identified and held for future test or surveillance requirements, either destructive or nondestructive in nature. May contain formerly serviceable assets that become unserviceable by reason of being reserved for test, or shelf or service life.

K	**SUSPENDED (RETURNS)**	Materiel returned from customers or users and awaiting condition classification	Includes items identified by stock number and item name, but not examined for condition. Inspect and classify stocks in this condition code properly as to condition within 30 days of receipt. When more time is required, the flight chief or MASO may grant an extension.
L	**SUSPENDED (LITIGATION)**	Materiel held pending litigation or negotiation with contractors or common carriers.	
M	**SUSPENDED (IN WORK)**	Materiel identified on inventory control record, but that has been turned over to a maintenance facility or contractor for processing.	
N	**SUSPENDED (AMMUNITION SUITABLE FOR EMERGENCY COMBAT USE ONLY)**	Ammunitions stocks suspended from issue except for emergency combat use.	
P	**UNSERVICEABLE (RECLAMATION)**	Materiel determined to be unserviceable and uneconomically repairable as result of physical inspection, tear down, or engineering decision. Item contains serviceable components or assemblies to be reclaimed.	
R	**SUSPENDED (RECLAIMED ITEMS, AWAITING CONDITION DETERMINATION**	Assets turned in by reclamation activities that do not have the capability (e.g., skills, manpower, or test equipment) to determine the materiel condition. Actual condition will be determined prior to induction into maintenance activities for repair or modification.	

S	**UNSERVICEABLE (SCRAP)**	Items that have no value except for their basic materiel content. No stock will be recorded as on hand in condition code S. This code is used only on transactions that involve shipments to defense reutilization and marketing offices.	

Attachment 3

AFTO FORM 15, AIRMUNITIONS SERVICEABILITY AND LOCATION RECORD

A3.1. General:

NOTES:

The AFTO Form 231 was a mechanized version of the AFTO Form 15 that was handled and controlled the same as an AFTO Form 15. The AFTO Form 231 is now obsolete but may remain in file for historical purposes. However, entries may no longer be made on the form.

AFTO Form 102 and AFTO Form 15 computer generated facsimiles are acceptable. DA Form 3022-R, **Depot Surveillance Record (DSR)**, is a valid equivalent inspection document. Do not reaccomplish existing documentation solely to comply with the procedures in this section.

A3.2. Use the AFTO Form 15, **Airmunitions Serviceability and Location Record**, to record inspection results, maintenance, and TCTO actions required on munitions while in Air Force inventory.

NOTE:

A trailer card is a 5 x 8 inch card that may be used for recording supplemental AFTO Form 15 information for lot and serial numbers, and shelf and service life expiration dates.

A3.2.1. Maintain AFTO Forms 15 by lot or serial number for all nonnuclear munitions and components assigned to Air Force munitions accounts.

A3.2.1.1. Applicability. Prepare and maintain an individual AFTO Form 15 for all munitions (i.e., live, inert, and empty) by lot number or serial number unless exempted by specific item technical order.

A3.2.1.2. Recording. Normally, keep the AFTO Form 15 record by lot number only. If both lot and serial number are available, do not maintain records by both, unless specified by OO-ALC or the specific item technical order. Use separate forms for each condition code within a lot. When reporting various lot numbers on a single AF Form 191, you may prepare a single AFTO Form 15 listing lot numbers, quantities, and date of manufacture on a trailer card instead of preparing separate AFTO Forms 15 for each lot number listed on ADR.

A3.2.1.3. Shelf and Service Life Assignment. Prepare and maintain forms on any item which assigned shelf and service life determine serviceability. When a lot has more than one date of manufacture, use the most recent date for shelf life application.

A3.2.1.4. Munitions With Reduced Service Life. Maintain a separate form on all munitions with a reduced service life. When a specific item technical order specifies the service life begins upon removal from a sealed container, the AFTO Form 15 reflects date of service life expiration in the Service Life block and the length of the service life. Enter the date service life started, when known, in the Record of Inspections block. You may prepare a trailer card for multiple items in the same lot having different date of expiration.

A3.2.1.5. Items Issued to Custody Account . Maintain a form by munitions issuing activity, by lot, batch, or serial number, for munitions shipped or transferred to custody accounts. Munitions custody accounts need not maintain AFTO Forms 15 for munitions in their possession.

A3.2.1.6. Munitions Not Assigned Lot or Serial Numbers. Lot and serial numbers are purposely withheld from some munitions due to size or construction. On some items, the lot identification is only on the packaging. The specific requirement for a lot number is specified as a checkpoint in the item technical order. Some items are manufactured without lot numbers and therefore, will not have an inspection checkpoint in the technical order. **NONE** and **UNKNOWN** are not valid lot numbers; use these terms on records for information purposes only and not for lot identification. The term **NONE** is used when items are intentionally not assigned a lot number. **UNKNOWN** is used when lot identification is lost and no longer available. Inert munitions without lot numbers may be mixed in storage. Maintain separation by NSN. Maintain an AFTO Form 15 on each NSN unless otherwise exempted.

A3.2.1.7. Munitions Being Shipped. When shipping or issuing munitions to other Air Force activities or DoD agencies, prepare copies of AFTO Form 15 for each lot or serial numbered item, as applicable. List as a minimum all TCTO actions, the last periodic and shipping inspections, and all actions resulting in condition code changes. Enclose one copy with the shipping documents in the number one container.

A3.2.1.8. Palletized Ammunition for Air Force Mobility Program. Forward AFTO Forms 15 for standard Airmunitions packages assets as a follow-on document only if requested by gaining unit. See AFM 67-1, Volume I, Part One, Chapter 20.

A3.2.1.9. Lot Numbering System. Contracts let since 1976 require compliance with the following lot numbering system. This system eliminates the need for a separate date of manufacture marking. Do not mark date of manufacture on items that comply with the new lot numbering system.

AMC	90	D	018	-	124	B
I	I	I	I	I	I	I
A3.2.1.9.1	A3.2.1.9.2	A3.2.1.9.3	A3.2.1.9.4	A3.2.1.9.5	A3.2.1.9.6	A3.2.1.9.7

A3.2.1.9.1. Manufacturer’s identification symbol.

A3.2.1.9.2. A two digit numeric code identifying the year of production.

A3.2.1.9.3. A single alpha code signifying month of production. Single alpha codes indicating month of production are as follows:

January	A
February	B
March	C
April	D
May	E
June	F
July	G
August	H

September	J
October	K
November	L
December	M

A3.2.1.9.4. Lot interfix number.

A3.2.1.9.5. Lot identifier code or dash (-) - May have a one digit alpha code identifying the lot as experimental (E), a first article production (A), functional pack (L), reference lot (R), Southwest Asia lot (Y), etc.

A3.2.1.9.6. Lot sequence number.

A3.2.1.9.7. Ammunition lot suffix (the alpha suffix).

A3.2.1.9.8. Ammunition lot suffix (the alpha suffix).

A3.2.2. AFTO Form 15 Preparation. Ensure forms retain legibility when reproduced. Prepare form as follows:

A3.2.2.1. Preliminary data (obtain from AFTO Form 102).

- National Stock Number (NSN) and Department of Defense Identification Code (DODIC). Obtain from FED LOG.
- Item nomenclature (may be abbreviated; authorized abbreviations are identified in the introduction of TO 11A-1-1) and model number.
- Lot or serial number.
- Part number (optional unless an NSN is not assigned).
- DOT marking (not required). Use this block to show the specific item technical manual number (include TO 11A-1-53, if applicable).
- Hazard class/division and compatibility group.
- Location(s).
- Manufacturer (optional, unless not included as a part of the lot number).
- Date of manufacture (month/year). May be extracted from the lot number for block entries when the lot number includes date of manufacture.
- Stock record account number (custody account number optional).
- Service life.
- Shelf life.
- Amount per box (not required).

A3.2.2.2. Inspection peculiar documentation.

- Date of inspections (day, month, and year). Obtain from AFTO Form 102.

NOTES:

All munitions in the Air Force inventory will have a condition code assigned.

- Condition code.

No inspector's signature or type of inspection is required for administrative entries (e.g., TO 11A-1-1 suspensions, restrictions, or releases).

- Inspector's signature. Inspector's name will be typed or printed in the signature block. The person completing the form initials this block.
- Type inspection. Obtained from the AFTO Form 102.
- Record of inspection. This block may reference, by job control number, the AFTO Form 102 completed during actual inspection. Include in this block, if applicable, number of items inspected; all defects noted; electrical and/or functional test results; suspension, restriction, or release authority; disposition request (ADR number); date service life started; action taken to correct defects; TCTO number and actions; authority for special inspection, reason for inspection, and results.

A3.2.2.3. Use reverse side of AFTO Form 15 to indicate:

- Voucher numbers of items received, issued, turned in, shipped, destroyed, reidentified to a new NSN, and inventory adjustment.
- Location(s) of item if stored in more than one location.
- Balance on hand.
- Inventories performed. Entries will include date of inventory (if there are no discrepancies) or inventory adjustment voucher number and new adjusted balance (monthly inventory entries may be exempted at MAJCOM option).
- Quantity balances and associated data on reverse side of AFTO Form 15 is auditable but not accountable.

A3.3. Forms Retention/Disposition. AFTO Form 15 files fall into one of three types: active, inactive, and dead files.

A3.3.1. Active AFTO Form 15 files are those AFTO Forms 15 for munitions currently on hand in base stock or on custody account. These forms reflect the current information of on hand munitions to include location and condition.

A3.3.2. Inactive AFTO Form 15 files are those AFTO Forms 15 for munitions currently in the inventory of on-hand munitions, either in FK stock or custody account. The form may or may not reflect the current condition code or other current data. These cards may include AFTO Forms 15 of current, on-hand munitions that have filled blocks and replacement forms.

A3.3.3. Dead file AFTO Forms 15 consist of AFTO Forms 15 for munitions where all items of the lot or serial numbered munitions have been expended, disposed of, issued for consumption, or shipped, and the lot or serial numbered munitions no longer exist in the inventory of the particular stock record account or are assigned to a custody account.

A3.3.4. Maintain active and inactive AFTO Forms 15 for munitions assigned to the stock record account or to a custody account.

A3.3.5. When all munitions of a lot or serial number are expended, disposed of, issued for consumption, or shipped, retain the AFTO Form 15 as per AFI 37-133, Volume 2. For munitions returned for storage purposes, the AFTO Form 15, if available, may be reactivated and corrected where applicable.

A3.3.6. Screen active, inactive, and dead file AFTO Forms 15 upon receipt of TO 11A-1-1 safety supplements, changes, and revisions for actions applicable to munitions in FK stock, in custody accounts, and to identify past users of consumption issued munitions.

Attachment 4

AFTO 102, MUNITIONS INSPECTION DOCUMENT

A4.1. Applicability and preparation.

A4.1.1. Applicability. Use AFTO Form 102 when performing all inspections required by this instruction. Multiple lots or serial numbers may be included on the same form if a clear status of the item(s) can be obtained. The reverse side of the form may be used if necessary.

A4.1.2. Preparation. Complete the AFTO Form 102 as follows (the back of the form may be used to record inspections of different lots of the same NSN):

- Block 1 - Job Control Number.
- Block 2 - NSN and DODIC (FED LOG).
- Block 3 - Nomenclature (may be abbreviated; authorized abbreviations as identified in the introduction of TO 11A-1-1). Use the item TO.
- Block 4 - Lot/Serial Number. Obtain from item or associated records.
- Block 5 - Part Number (Optional, required when NSN is not assigned).
- Block 6 - Manufacturer (optional, mandatory if not in lot number).
- Block 7 - Date of Manufacture (Month/Year). Most recent DOM will be used.
- Block 8 - Location. No entry required.
- Block 9 - DOT Marking. TO 11A-1-46 codes may be used (shipping and receiving inspections only).
- Block 10 - Hazard Class/Division and Compatibility Group. Obtain from TO 11A-1-46. (For example: (04) 1.2E).
- Block 11 - Quantity in Lot (the quantity the inspector based the inspection on).
- Block 12 - Quantity Inspected. Identify outer container, inner container, and item quantities inspected (e.g., 01/02/40, 05/10/200, etc.).
- Block 13 - Type Inspection(s). Abbreviations may be used (e.g., PI, RMI, SMI, RI, SI, SPI, or PII). More than one inspection may be documented on a single form if clear and accurate data can be obtained.
- Block 14 - Service Life (from the item technical order).
- Block 15 - Shelf Life (from the item technical order).
- Block 16 - Requisition Transportation Control Number (TCN) or Voucher Number. Enter the 17 alpha-numeric characters for shipping, receiving, preissue, or returned munitions inspections. Obtain from appropriate documentation.
- Block 17 - TO Reference(s). Cite specific item technical order. For inert, empty, and training items also cite TO 11A-1-53.
- Block 18 - Inspection Method. Visual, electrical, etc., as prescribed in the item technical manual.
- Block 19 - Defectives Noted. Determined by inspection and classification using item technical manual.

- Block 20 - Reject Limits. Refer to section D.
- Block 21 - Remarks. Accurately describe what kinds of defects make up the quantities of critical, major, and minor defectives shown in block 19. For example: one item missing safety device (critical), minor corrosion on body (minor) - rejected. One item markings partially obliterated (major), minor corrosion (minor) - corrected. No other defects noted. For an SPI, annotate the authority, reason, and results. Enter the date service life started, expiration date and/or cumulative service life used. Also use this block to document environmental, manufacturing, and user-induced defects. Annotate maintenance requirements, if needed, in block 27.
- Block 22 - Condition Code Results. Cite all results (e.g., A to A, A to B, A to H, E to A, etc.). Account for entire quantity in lot (block 11).
- Block 23 - Date Inspected. Actual date inspection performed.
- Block 24 - Signature/Stamp. Use the inspector's signature.
- Block 25 - AFTO Form 15, Date and Initials. Entered by person posting the AFTO Form 15 to reflect when posting occurred and by whom posted.
- Block 26 - Stock Record, Date, and Initials. Entered by munitions operations representative. Indicated acknowledgment of data portrayed on form. Date and initials in this block constitutes fulfillment of MASO notification requirements (MAJCOM option).
- Block 27 - To Correct, JCN and ADR Number. Identify AWM, AWP, and/or ADR number.

A4.2. Munitions Inspection Deficiency Reporting. This system provides munitions engineers data on the condition of assets stored at USAF units. The data determines inspection intervals, trends by lot, etc. However, when product quality is questionable, use a product quality deficiency report. Regardless, send a copy of the AFTO Form 102 (or computer generated facsimile) to USAF ACP/LIW, Hill AFB, UT 84056-5609, and MAJCOM for the following classes of defects:

- Critical defects.
- Major defects (do not send for shelf or service life expiration).
- Minor defects, other than manufacturing defects.

A4.3. CAS Inspection Programs and Reports. The following is a listing of applicable CAS-B reports which require annotation and update after inspection. Refer to AFM 136-824, Volume 1, *Combat Ammunition System - Base: Users Manual,* for specific instructions and illustrations.

		TRIC
IS 208F	Update Weapon Inspection Record	(WIL)
IS 209F	Complete Round Inspection Update	(CIL)
IS 210F	Complete Round Inspection Inquiry	(CII)
IS 211F	Complete Round Inspection History	Report
IS 321F	Periodic Inspection of Assets Listing	Report
IS 505F	Turn-In	(XHT)
IS 507F	Receiving	(XHR)

IS 513F	Complete Round Turn-In	(XIN)
IS 531F	Asset Balance Listing-Inspection	Report
IS 600F	Lot History Update	(XHX)
IS 608F	Inspection Listing	Report
IS 609F	Inspection Interval Modification	(QD3)
IS 610F	Inspection Data Update	(XIK)
IS 611F	Condition Code Change	(XIK)
IS 615F	Inspection Listing	Report
IS 620F	Ammunition Disposition Request	(XID)
IS 622F	Inspection History Maintenance	(IHM)
IS 623F	Inspection History Validation Listings	Report

A4.4. Forms Retention and Disposition. Dispose of AFTO Forms 102 as prescribed in AFI 37-133, Volume 2, *Disposition of Air Force Records--Records Disposition Schedule*.

Attachment 5

REGROUPED LOTS

A5.1. Procedure for Regrouping Lots. Assemble and identify regrouped lots by 13 alpha-numeric characters as follows:

- First three characters represent the base where the regrouping took place, e.g., SEM for Sembach AB, GE; KAD for Kadena AB, JA; LUK for Luke AFB, AZ; etc.
- The two digit numeric code for the year the regrouping took place.
- The alpha code represents the starting month of the regrouping.
- Lot interfix is a three digit number and identifies items of a separate series or type that comprises a regrouped lot.
- Capital letter G to identify regrouping action.
- Lot sequence number begins with 001 to identify the first regrouping action for a particular type or model of items.
- This would give a local lot regrouped in December 1989 at Sembach AB the following number: SEM89M001G001.
- Cite all required information of the original lots that make up the regrouped lots on AFTO Forms 15 and CAS-B lot history records. Units not under CAS-B may use trailer cards. Retain this information for tracking ammunition suspensions. For units shipping regrouped lots, send the receiving unit a copy of the information.

Attachment 6

IC 98-1 TO AFI 21-201, INSPECTION, STORAGE, AND MAINTENANCE OF NON-NUCLEAR MUNITIONS

SUMMARY OF REVISIONS

This interim change (IC) adds the requirement to have more random searches conducted by munitions storage area entry controllers (para 1.4.9). It also adds the need to have two personnel sign out keys and access structures containing very high risk, high risk, and pilferable munitions (para 1.5.11.1). It finally adds instructions to use movement control cards for all munitions assets, to include courtesy-stored munitions, in the MSA (para 3.3.1.1).

1.4.9. Develops written entry control procedures for the munitions storage area (MSA). Ensure procedures contain performance of random vehicle and personnel searches during MSA entry and exit as per DOD 5100.76M, Chapter 5, Paragraph I.

1.5.11.1. Ensure procedures require two individuals to sign out keys, and maintain paired-access, for structures owned by the munitions storage area containing very high risk, high risk, and pilferable munitions.

3.3.1.1. Use a MAJCOM or locally computer-generated form to track munitions movements within, to, and from munitions storage sites to include both stockpile and custody account assets (excludes pilot training custody accounts and assets tracked by munitions personnel via other means for flightline delivery). As a minimum, this form contains the following headings or blocks: National Stock Number, Item Nomenclature, Control Number of the Movement Control Record, Date Issued, Document Number, Work Order Number, Issued To, Item Lot Number, Quantity, Condition Code, From, To, Action Codes, Crew Chief, Date Accomplished, and Reviewed and Posted.